105th Congress, 2d Session – – – – – – – – – – – – House Document 105–248

PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE UNITED STATES AND UKRAINE CONCERNING PEACEFUL USES OF NUCLEAR ENERGY

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

THE TEXT OF A PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND UKRAINE CONCERNING PEACEFUL USES OF NUCLEAR ENERGY, WITH ACCOMPANYING ANNEX AND AGREED MINUTE, PURSUANT TO 42 U.S.C. 2153(d).

APRIL 6, 1998.—Message and accompanying papers referred to the Committee on International Relations and ordered to be printed

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U.S. GOVERNMENT PRINTING OFFICE

59–011 WASHINGTON : 1998

To the Congress of the United States:

I am pleased to transmit to the Congress, pursuant to sections 123 b. and 123 d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153 (b), (d)), the text of a proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy, with accompanying annex and agreed minute. I am also pleased to transmit my written approval, authorization, and determination concerning the agreement, and the memorandum of the Director of the United States Arms Control and Disarmament Agency with the Nuclear Proliferation Assessment Statement concerning the agreement. The joint memorandum submitted to me by the Secretary of State and the Secretary of Energy, which includes a summary of the provisions of the agreement and various other attachments, including agency views, is also enclosed.

The proposed agreement with Ukraine has been negotiated in accordance with the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978 and as otherwise amended. In my judgment, the proposed agreement meets all statutory requirements and will advance the nonproliferation and other foreign policy interests of the United States. The agreement provides a comprehensive framework for peaceful nuclear cooperation between the United States and Ukraine under appropriate conditions and controls reflecting our common commitment to nuclear nonproliferation goals.

The proposed new agreement with Ukraine permits the transfer of technology, material, equipment (including reactors), and components for nuclear research, and nuclear power production. It provides for U.S. consent rights to retransfers, enrichment, and reprocessing as required by U.S. law. It does not permit transfers of any sensitive nuclear technology, restricted data, or sensitive nuclear facilities or major critical components of such facilities. In the event of termination, key conditions and controls continue with respect to material and equipment subject to the agreement.

Ukraine is a nonnuclear weapon state party to the Treaty on the Nonproliferation of Nuclear Weapons (NPT). Following the dissolution of the Soviet Union, Ukraine agreed to the removal of all nuclear weapons from its territory. It has a full-scope safeguards agreement in force with the International Atomic Energy Agency (IAEA) to implement its safeguards obligations under the NPT. Ukraine was accepted as a member of the Nuclear Suppliers Group in April 1996, and as a member of the NPT Exporters Committee (Zangger Committee) in May 1997.

I have considered the views and recommendations of the interested agencies in reviewing the proposed agreement and have determined that its performance will promote, and will not constitute an unreasonable risk to, the common defense and security. Accord-

ingly, I have approved the agreement and authorized its execution and urge that the Congress give it favorable consideration.

Because this agreement meets all applicable requirements of the Atomic Energy Act, as amended, for agreements for peaceful nuclear cooperation, I am transmitting it to the Congress without exempting it from any requirement contained in section 123 a. of that Act. This transmission shall constitute a submittal for purposes of both sections 123 b. and 123 d. of the Atomic Energy Act. My Administration is prepared to begin immediately the consultations with the Senate Foreign Relations and House International Relations Committees as provided in section 123 b. Upon completion of the 30-day continuous session period provided for in section 123 b., the 60-day continuous session provided for in section 123 d. shall commence.

WILLIAM J. CLINTON.

THE WHITE HOUSE, *May 6, 1998.*

AGREEMENT FOR COOPERATION BETWEEN
THE UNITED STATES OF AMERICA
AND UKRAINE
CONCERNING PEACEFUL USES OF NUCLEAR ENERGY

The Government of the United States of America and the Government of Ukraine;

Reaffirming their support for strengthening nuclear non-proliferation measures worldwide;

Mindful of their respective obligations under the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT") to which both the United States of America and Ukraine are parties;

Reaffirming their intention to work closely together and with other states to urge universal adherence to the NPT and full realization of the purposes of the preamble and of all the provisions of the Treaty;

Reaffirming their commitment to ensuring that the international development and use of nuclear energy for peaceful purposes are carried out under arrangements that will to the maximum possible extent further the objectives of the NPT;

Affirming their support of the objectives of the International Atomic Energy Agency ("IAEA");

Recognizing the indispensable role of the safeguards system of the IAEA in the maintenance of an effective non-proliferation regime;

Confirming their commitment to the strengthening of IAEA safeguards, including their readiness to take such steps as are necessary to allow the Agency to apply safeguards effectively and efficiently and to attain its inspection goal at facilities in their respective jurisdictions;

Recognizing that they have decided to act in accordance with the principles contained in the Guidelines for Nuclear Transfers of the Nuclear Suppliers Group;

Stressing the importance of Nuclear Suppliers Group principles on full-scope IAEA safeguards as a condition of transfer to non-nuclear weapon states; on the control of dual-use items; and on the exercise of restraint in the export of sensitive items;

Recognizing the importance of maintaining effective nuclear material control and accountancy and physical protection in accordance with international standards;

Desiring to cooperate in the development, use and control of peaceful uses of nuclear energy; and

Mindful that peaceful nuclear activities must be undertaken with a view to protecting the international environment from radioactive, chemical and thermal contamination;

Have agreed as follows:

ARTICLE 1 - DEFINITIONS

For the purposes of this agreement:

(A) "Byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material;

(B) "Component" means a component part of equipment or other item, so designated by agreement of the parties;

(C) "Conversion" means any of the normal operations in the nuclear fuel cycle, preceding fuel fabrication and excluding enrichment, by which uranium is transformed from one chemical form to another -- for example, from UF6 to UO2 or from uranium oxide to metal;

(D) "Decommissioning" means the actions taken at the end of a facility's useful life to retire the facility from service in a manner that provides adequate protection for the health and safety of the decommissioning workers and

the general public, and for the environment. These actions can range from closing down the facility and a minimal removal of nuclear material coupled with continuing maintenance and surveillance, to a complete removal of residual radioactivity in excess of levels acceptable for unrestricted use of the facility and its site;

(E) "Equipment" means any reactor, other than one designed or used primarily for the formation of plutonium or uranium 233, or any other item so designated by agreement of the parties;

(F) "High enriched uranium" means uranium enriched to twenty percent or greater in the isotope 235;

(G) "Low enriched uranium" means uranium enriched to less than twenty percent in the isotope 235;

(H) "Major critical component" means any part or group of parts essential to the operation of a sensitive nuclear facility;

(I) "Material" means source material, special nuclear material, byproduct material, radioisotopes other than byproduct material, moderator material, or any other such substance so designated by agreement of the parties;

(J) "Moderator material" means heavy water or graphite or beryllium of a purity suitable for use in a reactor to slow down high velocity neutrons and increase the likelihood of further fission, or any other such material so designated by agreement of the parties;

(K) "Parties" means the Government of the United States of America and the Government of Ukraine;

(L) "Peaceful purposes" include the use of information, material, equipment and components in such fields as research, power generation, medicine, agriculture and industry but do not include use in, research on, or development of any nuclear explosive device, or any military purpose;

(M) "Person" means any individual or any entity subject to the jurisdiction of either party but does not include the parties to this agreement;

(N) "Reactor" means any apparatus, other than a nuclear weapon or other nuclear explosive device, in which a self-sustaining fission chain reaction is maintained by utilizing uranium, plutonium or thorium or any combination thereof;

(O) "Restricted data" means all data concerning (1) design, manufacture or utilization of nuclear weapons, (2) the

production of special nuclear material, or (3) the use of special nuclear material in the production of energy, but shall not include data of a party which it has declassified or removed from the category of restricted data;

(P) "Sensitive nuclear facility" means any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, heavy water production, or fabrication of nuclear fuel containing plutonium;

(Q) "Sensitive nuclear technology" means any information (including information incorporated in equipment or an important component) which is not in the public domain and which is important to the design, construction, fabrication, operation or maintenance of any sensitive nuclear facility, or other such information which may be so designated by agreement of the parties;

(R) "Source material" means (1) natural uranium, depleted uranium, thorium, or any other material so designated by agreement of the parties, or (2) ores containing one or more of the foregoing materials in such concentration as the parties may agree from time to time;

(S) "Special nuclear material" means (1) plutonium, uranium 233, or uranium enriched in the isotope 235, or (2) any other material so designated by agreement of the parties.

ARTICLE 2 - SCOPE OF COOPERATION

1. The parties shall cooperate in the use of nuclear energy for peaceful purposes in accordance with the provisions of this agreement and their applicable treaties, national laws, regulations and license requirements.

2. Transfer of information, material, equipment and components under this agreement may be undertaken directly between the parties or through authorized persons. Such transfers shall be subject to this agreement and to such additional terms and conditions as may be agreed by the parties.

ARTICLE 3 - TRANSFER OF INFORMATION

1. Information concerning the use of nuclear energy for peaceful purposes may be transferred. Transfers of information may be accomplished through various means, including reports, data banks, computer programs, conferences, visits, and assignments of staff to facilities. Fields which may be covered include, but shall not be limited to, the following:

(A) Development, design, construction, operation, maintenance and use of reactors, reactor experiments, and decommissioning;

(B) The use of material in physical and biological research, medicine, agriculture and industry;

(C) Fuel cycle studies of ways to meet future world-wide civil nuclear needs, including multilateral approaches to guaranteeing nuclear fuel supply and appropriate techniques for management of nuclear wastes;

(D) Safeguards and physical protection of materials, equipment, and components;

(E) Health, safety and environmental considerations related to the foregoing; and

(F) Assessing the role nuclear power may play in national energy plans.

2. This agreement does not require the transfer of any information which the parties are not permitted under their respective treaties, national laws, and regulations to transfer.

3. Restricted data shall not be transferred under this agreement.

4. Sensitive nuclear technology shall not be transferred under this agreement unless provided for by an amendment to this agreement.

ARTICLE 4 - TRANSFER OF MATERIAL, EQUIPMENT AND COMPONENTS

1. Material, equipment and components may be transferred for applications consistent with this agreement. Any special nuclear material transferred to Ukraine under this agreement shall be low enriched uranium, except as provided in paragraph 4. Sensitive nuclear facilities and major critical components thereof shall not be transferred under this agreement, unless provided for by an amendment to this agreement.

2. Low enriched uranium may be transferred for use as fuel in reactor experiments and in reactors, for conversion or fabrication, or for such other purposes as may be agreed by the parties.

3. The quantity of special nuclear material transferred under this agreement shall not at any time be in excess of that quantity the parties agree is necessary for any of the following purposes: use in reactor experiments or the loading of reactors, the efficient and continuous conduct of such reactor experiments or operation of reactors, and the accomplishment of other purposes as may be agreed by the parties.

4. Small quantities of special nuclear material may be transferred for use as samples, standards, detectors,

targets and for such other purposes as the parties may agree. Transfers pursuant to this paragraph shall not be subject to the quantity limitations in paragraph 3.

5. The United States of America shall endeavor to take such actions as are necessary and feasible to ensure a reliable supply of nuclear fuel to Ukraine, including the export of nuclear material on a timely basis and the availability of the capacity to carry out this undertaking during the period of this agreement.

ARTICLE 5 - STORAGE AND RETRANSFERS

1. Plutonium and uranium 233 (except as contained in irradiated fuel elements), and high enriched uranium, transferred pursuant to this agreement or used in or produced through the use of material or equipment so transferred shall only be stored in a facility to which the parties agree.

2. Material, equipment and components transferred pursuant to this agreement and any special nuclear material produced through the use of any such material or equipment shall not be transferred to unauthorized persons or, unless the parties agree, beyond the recipient party's territorial jurisdiction.

ARTICLE 6 - REPROCESSING AND ENRICHMENT

1. Material transferred pursuant to this agreement and material used in or produced through the use of material or equipment so transferred shall not be reprocessed unless the parties agree.

2. Plutonium, uranium 233, high enriched uranium and irradiated source or special nuclear material, transferred pursuant to this agreement or used in or produced through the use of material or equipment so transferred, shall not be altered in form or content, except by irradiation or further irradiation, unless the parties agree.

3. Uranium transferred pursuant to this agreement or used in any equipment so transferred shall not be enriched after transfer unless the parties agree.

ARTICLE 7 - PHYSICAL PROTECTION

1. Adequate physical protection shall be maintained with respect to source or special nuclear material and equipment transferred pursuant to this agreement and special nuclear material used in or produced through the use of material or equipment so transferred.

2. The parties agree to the levels for the application of physical protection set forth in the Annex to this agreement, which may be modified by mutual consent of the parties without amending this agreement. The parties shall maintain adequate physical protection measures in accordance with these levels. These measures shall as a minimum provide protection comparable to the recommendations set forth in the current version, as agreed to by the parties, of IAEA Document INFCIRC/225.

3. The adequacy of physical protection measures maintained pursuant to this article shall be subject to review and consultations by the parties from time to time and whenever either party is of the view that revised measures may be required to maintain adequate physical protection.

4. The parties will keep each other informed through diplomatic channels of those agencies or authorities having responsibility for ensuring that levels of physical protection for nuclear material in their territory or under their jurisdiction or control are adequately met and having responsibility for coordinating response and recovery operations in the event of unauthorized use or handling of material subject to this article. The parties will inform each other through diplomatic channels, as well, of the designated points of contact within their national authorities to cooperate on matters of out-of-country transportation and other matters of mutual concern.

5. The provisions of this article shall be implemented in such a manner as to avoid undue interference in the parties' nuclear activities and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

ARTICLE 8 - NO EXPLOSIVE OR MILITARY APPLICATION

Material, equipment and components transferred pursuant to this agreement and material used in or produced through the use of any material, equipment or components so transferred shall not be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

ARTICLE 9 - SAFEGUARDS

1. Cooperation under this agreement shall require the application of IAEA safeguards with respect to all nuclear activities within the territory of Ukraine, under its jurisdiction or carried out under its control anywhere. Implementation of a Safeguards Agreement pursuant to Article III (4) of the NPT shall be considered to fulfill this requirement.

2. Source or special nuclear material transferred to Ukraine pursuant to this agreement and any source or

special nuclear material used in or produced through the use of material, equipment or components so transferred shall be subject to safeguards in accordance with the agreement between Ukraine and the IAEA for the application of safeguards in connection with the NPT, signed on September 21, 1995 and entered into force on January 22, 1998.

3. Source or special nuclear material transferred to the United States of America pursuant to this agreement and any source or special nuclear material used in or produced through the use of any material, equipment or components so transferred shall be subject to the agreement between the United States of America and the IAEA for the application of safeguards in the United States of America, done at Vienna November 18, 1977, entered into force on December 9, 1980.

4. If either party becomes aware of circumstances which demonstrate that the IAEA for any reason is not or will not be applying safeguards in accordance with the agreement as provided for in paragraph 2 or paragraph 3, to ensure effective continuity of safeguards the parties shall consult and immediately enter into arrangements with the IAEA or between themselves which conform with IAEA safeguards principles and procedures, which provide assurance equivalent to that intended to be secured by the

system they replace, and which conform with the coverage required by paragraph 2 or paragraph 3.

5. Each party shall take such measures as are necessary to maintain and facilitate the application of safeguards provided for under this article.

6. Each party shall establish and maintain a system of accounting for and control of source and special nuclear material transferred pursuant to this agreement and source and special nuclear material used in or produced through the use of any material, equipment or components so transferred. The procedures for this system shall be comparable to those set forth in IAEA document INFCIRC/153 (corrected), or in any revision of that document agreed to by the parties.

7. Upon the request of either party, the other party shall report or permit the IAEA to report to the requesting party on the status of all inventories of material subject to this agreement.

8. The provisions of this article shall be implemented in such a manner as to avoid hampering, delay or undue interference in the parties' nuclear activities and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

ARTICLE 10 - MULTIPLE SUPPLIER CONTROLS

If any agreement between either party and another nation or group of nations provides such other nation or group of nations rights equivalent to any or all of those set forth under Article 5 or 6 with respect to material, equipment or components subject to this agreement, the parties may, upon request of either of them, agree that the implementation of any such rights will be accomplished by such other nation or group of nations.

ARTICLE 11 - CESSATION OF COOPERATION

1. If either party at any time following entry into force of this agreement:

(A) does not comply with the provisions of Article 5, 6, 7, 8, or 9; or

(B) terminates, abrogates or materially violates a safeguards agreement with the IAEA;

the other party shall have the rights to cease further cooperation under this agreement and to require the return of any material, equipment and components transferred under

this agreement and any special nuclear material produced through their use.

2. If Ukraine at any time following entry into force of this agreement detonates a nuclear explosive device, the United States of America shall have the same rights as specified in paragraph 1.

3. If either party exercises its rights under this Article to require the return of any material, equipment or components, it shall, after removal from the territory of the other party, reimburse the other party for the fair market value of such material, equipment or components.

ARTICLE 12 - CONSULTATIONS AND ENVIRONMENTAL PROTECTION

1. The parties undertake to consult at the request of either party regarding the implementation of this agreement and the development of further cooperation in the field of peaceful uses of nuclear energy.

2. The parties shall consult, with regard to activities under this agreement, to identify the international environmental implications arising from such activities and shall cooperate in protecting the international environment from radioactive, chemical or thermal contamination arising from peaceful nuclear activities under this agreement and in related matters of health and safety.

ARTICLE 13 - SETTLEMENT OF DISPUTES

Any dispute concerning the interpretation or implementation of the provisions of this agreement shall be promptly negotiated by the parties with a view to resolving that dispute.

ARTICLE 14 - ENTRY INTO FORCE AND DURATION

1. This agreement shall enter into force on the date on which the parties exchange diplomatic notes informing each other that they have completed all applicable requirements for its entry into force.

2. This agreement shall remain in force for a period of 30 years. This term may be extended for such additional periods as may be agreed between the parties in accordance with their applicable requirements. The agreement may be terminated at any time by either party on one year's written notice to the other party.

3. Notwithstanding the termination or expiration of this agreement or any cessation of cooperation hereunder for any reason, Articles 5, 6, 7, 8, 9, and 11 shall continue in effect so long as any material, equipment or components subject to these articles remains in the territory of the party concerned or under its jurisdiction or control

anywhere, or until such time as the parties agree that such material, equipment or components are no longer usable for any nuclear activity relevant from the point of view of safeguards.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Agreement.

DONE at Kiev, this 6th day of May 1998, in duplicate, in the English and Ukrainian languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF UKRAINE:

ANNEX

Pursuant to paragraph 2 of Article 7, the agreed levels of physical protection to be ensured by the competent national authorities in the use, storage and transportation of the materials listed in the attached table shall as a minimum include protection characteristics as below:

Category III

Use and storage within an area to which access is controlled.

Transportation under special precautions including prior arrangements among sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of supplier and recipient states, respectively, in case of international transport specifying time, place and procedures for transferring transport responsibility.

Category II

Use and storage within a protected area to which access is controlled, i.e., an area under constant surveillance by guards or electronic devices, surrounded by a physical barrier with a limited number of points of entry under appropriate control, or any area with an equivalent level of physical protection.

Transportation under special precautions including prior arrangements among sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of supplier and recipient states, respectively, in case of international transport, specifying time, place and procedures for transferring transport responsibility.

Category I

Material in this category shall be protected with highly reliable systems against unauthorized use as follows:

Use and storage within a highly protected area, i.e., a protected area as defined for category II above, to which, in addition, access is restricted to persons whose trustworthiness has been determined, and which is under surveillance by guards who are in close communication with appropriate response forces. Specific measures taken in this context should have as their objective the detection and prevention of any assault, unauthorized access or unauthorized removal of material.

Transportation under special precautions as identified above for transportation of categories II and III materials and, in addition, under constant surveillance by escorts and under conditions which assure close communication with appropriate response forces.

TABLE: CATEGORIZATION OF NUCLEAR MATERIAL

Material	Form	Category I	Category II	Category III[c]
1. Plutonium[a]	Unirradiated[b]	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
2. Uranium-235	Unirradiated[b] - uranium enriched to 20% ^{235}U or more - uranium enriched to 10% ^{235}U but less than 20% ^{235}U - uranium enriched above natural, but less than 10% ^{235}U	5 kg or more	Less than 5 kg but more than 1 kg 10 kg or more	1 kg or less but more than 15 g Less than 10 kg but more than 1 kg 10 kg or more
3. Uranium-233	Unirradiated[b]	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
4. Irradiated Fuel (The categorization of irradiated fuel in the table is based on international transport considerations. The State may assign a different category for domestic use, storage, and transport taking all relevant factors into account.)			Depleted or natural uranium, thorium or low enriched fuel (less than 10% fissile content)[d/e]	

[a] All plutonium except that with isotopic concentration exceeding 80% in plutonium-238.

[b] Material not irradiated in a reactor or material irradiated in a reactor but with a radiation level equal to or less than 1 Gy/hr (100 rads/hr) at one meter unshielded.

[c] Quantities not falling in Category III and natural uranium, depleted uranium and thorium should be protected at least in accordance with prudent management practice.

[d] Although this level of protection is recommended, it would be open to States, upon evaluation of the specific circumstances, to assign a different category of physical protection.

[e] Other fuel which by virtue of its original fissile material content is classified as Category I or II before irradiation may be reduced one category level while the radiation level from the fuel exceeds 1 Gy/hr (100 rads/hr) at one meter unshielded.

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AGREED MINUTE

During the negotiation of the Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy ("the Agreement") signed today, the following understandings, which shall be an integral part of the Agreement, were reached.

Coverage of Agreement

Material, equipment and components transferred from the territory of one party to the territory of the other party, whether directly or through a third country, will be regarded as having been transferred pursuant to the Agreement only upon confirmation, by the appropriate government authority of the recipient party to the appropriate government authority of the supplier party, that such material, equipment or components will be subject to the Agreement.

For the purposes of implementing the rights specified in Articles 5 and 6 with respect to special nuclear material produced through the use of nuclear material transferred pursuant to the Agreement and not used in or produced through the use of equipment transferred pursuant to the

Agreement, such rights shall in practice be applied to that proportion of special nuclear material produced which represents the ratio of transferred material used in the production of the special nuclear material to the total amount of material so used, and similarly for subsequent generations.

Safeguards

If either party becomes aware of circumstances referred to in paragraph 4 of Article 9, either party shall have the rights listed below, which rights shall be suspended if both parties agree that the need to exercise such rights is being satisfied by the application of IAEA safeguards under arrangements pursuant to paragraph 4 of Article 9:

(1) To review in a timely fashion the design of any equipment transferred pursuant to the Agreement, or of any facility which is to use, fabricate, process, or store any material so transferred or any special nuclear material used in or produced through the use of such material or equipment;

(2) To require the maintenance and production of records and of relevant reports for the purpose of assisting in ensuring accountability for material transferred pursuant to the Agreement and any source material or special nuclear

material used in or produced through the use of any material, equipment or components so transferred; and

(3) To designate personnel, in consultation with the other party, who shall have access to all places and data necessary to account for the material in paragraph 2, to inspect any equipment or facility referred to in paragraph 1, and to install any devices and make such independent measurements as may be deemed necessary to account for such material. Such personnel shall, if either party so requests, be accompanied by personnel designated by the other party.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF UKRAINE:

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THE WHITE HOUSE

WASHINGTON

April 28, 1998

Presidential Determination
No. 98-21

MEMORANDUM FOR THE SECRETARY OF STATE
THE SECRETARY OF ENERGY

SUBJECT: Presidential Determination on the Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy

I have considered the proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy, along with the views, recommendations, and statements of the interested agencies.

I have determined that the performance of the agreement will promote, and will not constitute an unreasonable risk to, the common defense and security. Pursuant to section 123 b. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153(b)), I hereby approve the proposed agreement and authorize you to arrange for its execution.

The Secretary of State is authorized and directed to publish this determination in the Federal Register.

William J. Clinton

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY
Washington, D.C. 20451

THE DIRECTOR

MAR 19 1998

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Nuclear Proliferation Assessment Statement for the Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy

As required by section 123 a. of the Atomic Energy Act of 1954, as amended, I am submitting to you an unclassified Nuclear Proliferation Assessment Statement (attached) with respect to the Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy. After providing background information on the nuclear programs and nuclear nonproliferation policies of Ukraine (Part I), this statement examines the applicable legal requirements (Part II), relevant policy issues (Part III), and arrives at certain conclusions (Part IV).

Ukraine has been strongly committed to nuclear nonproliferation from the July 16, 1990, Declaration on Ukrainian National Sovereignty and as demonstrated through Ukraine's adherence to START I and to the NPT on December 5, 1994. All nuclear weapons from the former Soviet Union were removed from Ukraine by June 1996. Ukraine has upgraded its system for the protection, control, and accounting of nuclear material and has adopted a nationwide nuclear export control system in conformance with the principles of the 35-nation Nuclear Suppliers Group (NSG), which Ukraine joined in 1996. In connection with the conclusion of the proposed Agreement, Ukraine affirmed its NSG obligation not to assist any unsafeguarded nuclear facilities and agreed to refrain from nuclear cooperation with Iran.

I have concluded that the proposed Agreement meets all statutory requirements. Further, I have reached a favorable assessment of the adequacy of the safeguards and other control mechanisms and the peaceful use assurances contained in the proposed Agreement to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.

John D. Holum

Attachment:
As stated

NUCLEAR PROLIFERATION ASSESSMENT STATEMENT

Pursuant to Section 123 a. of the
Atomic Energy Act of 1954, as amended,
With Respect to the Proposed Agreement for Cooperation
Between the Government of the United States of America
and Ukraine
Concerning Peaceful Uses of Nuclear Energy

This Nuclear Proliferation Assessment Statement relates to the proposed Agreement for Cooperation Between the Government of the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy. This agreement for cooperation (which is hereinafter called the "proposed Agreement") is concurrently being submitted to the President for his authorization for execution.

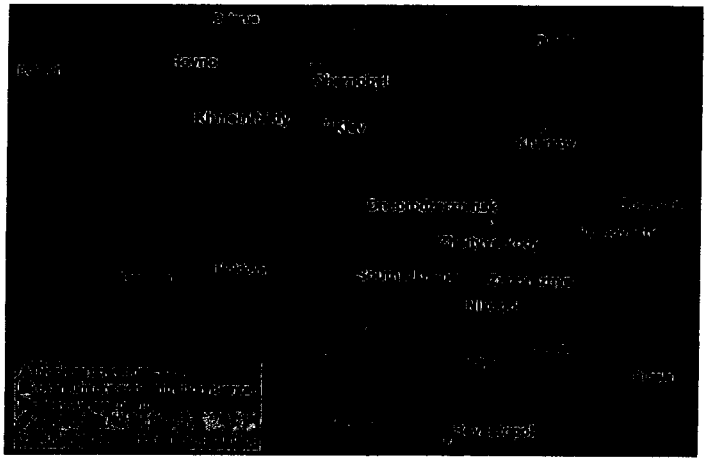
Section 123 a. of the Atomic Energy Act of 1954, as amended ("Atomic Energy Act"), provides that a Nuclear Proliferation Assessment Statement shall "analyze the consistency of the text of the proposed Agreement for cooperation with all the requirements of this Act, with specific attention to whether the proposed Agreement is consistent with each of the criteria set forth in this subsection" and address the "adequacy of the safeguards and other control mechanisms and the peaceful use assurances contained in the agreement for cooperation to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose." With this statutory mandate in mind, this assessment statement begins with background on the nuclear program and policies of Ukraine (Part I, pp. 1-10); describes the nature and scope of cooperation contemplated in the proposed Agreement, and reviews the applicable substantive requirements of the Nuclear Non-Proliferation Act (NNPA) and the Atomic Energy Act and how they are met by the proposed Agreement (Part II, pp. 10-20); discusses other nonproliferation policy issues pertinent to this case (Part III, pp. 20-26); and then sets forth the assessment, conclusions, views and recommendations of the United States Arms Control and Disarmament Agency, as contemplated by Section 123 a. of the Atomic Energy Act (Part IV, pp. 26-27).

I. BACKGROUND

A. Introduction

At the time of its independence, Ukraine retained significant nuclear assets from the former Soviet Union including thousands of nuclear weapons, 14 operational nuclear power reactors, and numerous nuclear fuel cycle and research facilities. Ukraine ranked in the top ten worldwide in terms of operational nuclear reactors and total electrical generating capacity. In addition, it claimed a well-developed nuclear research infrastructure, uranium mines, chemical plants for processing uranium ore, tens of kilograms of high enriched uranium (HEU) in bulk form, heavy water production capabilities, and a number of nuclear-related dual-use commodities such as zirconium, hanium, and ion-exchange resins. However, Ukraine's nuclear industry does not encompass the complete nuclear fuel cycle and it remains dependant on Russia for nuclear fuel and other nuclear-related goods and services. Ukraine continues to suffer severe economic problems which are keenly felt in the nuclear energy sector. The Government of Ukraine has made a commitment to the nonproliferation of nuclear weapons but continues to face challenges developing the regulatory, safety and security infrastructure necessary to administer its nuclear facilities. U.S. nonproliferation assistance has been successful in reducing the risk of proliferation originating in, or transiting through, Ukraine and has improved the safety and security of its nuclear facilities.

Ukrainian Nuclear Facilities



B. Denuclearization

In 1990, 176 START-accountable Intercontinental Ballistic Missiles (ICBM's) were deployed in Ukrainian territory at Pervomaysk and Khmelnytskiy. These missiles were attributed with 1240 nuclear warheads. In addition, 36 heavy bombers were located at Uzin (TU-95MS Bear) and Pryluky (TU-160 Blackjack) airfields. These bombers were attributed with 368 AS-15 long-range, air-launched cruise missiles (ALCM) each armed with a single nuclear warhead. Between two and three thousand non-strategic nuclear weapons were also deployed in Ukraine.

On 23 May 1992, the United States and Belarus, Kazakhstan, Russia, and Ukraine signed the Lisbon Protocol in which the four successor states agreed to assume the rights and obligations of the former Soviet Union under START (this so-called START I Treaty was signed on 31 July 1991, before the breakup of the Soviet Union). Under the Lisbon Protocol and the associated letters of agreement, Belarus, Kazakhstan, and Ukraine agreed to eliminate all strategic offensive arms on their territories during the seven-year START reduction period and to accede to the Nuclear Non-Proliferation Treaty (NPT) as non-nuclear-weapons states in the shortest possible time. A major step toward accomplishing these objectives was taken on 14 January 1994, when the leaders of the United States, Russia, and Ukraine signed a Trilateral Statement. This statement called for Ukraine to receive certain security assurances from the United States, Russia and the United Kingdom and to be compensated for the HEU in nuclear weapons transferred to Russia. The five Parties ratified START I, and it entered into force on 5 December 1994. On the same day a Joint Memorandum on Security Assurances was signed by Presidents Clinton, Yeltsin, Kravchuk (Ukraine), and UK Prime Minister Major.

All non-strategic nuclear armaments had been withdrawn from Ukrainian soil by May 1992. When the transfer was complete, the Ukrainian and Russian ministries of defense established a joint commission to inspect every site where nuclear weapons had been stored. After the inspections, the commission confirmed the complete withdrawal of all non-strategic nuclear weapons from Ukraine.

On 24 January 1995, Ukraine's Ministry of Defense issued a statement stating Ukraine has "fulfilled all conditions stipulated" in the START I treaty with regards to transferring ICBM warheads out of Ukraine. By June 1996, all nuclear warheads (including all ICBM, ALCM, and non-strategic warheads) had been withdrawn to Russia for dismantlement in accordance with the Trilateral Statement.

In March 1996 Russian and Ukrainian defense officials announced that Russia would procure 10 of the 19 Tu-160s and 15 of the 25 Tu-95MS strategic bombers held by Ukraine. The deal has yet to be implemented. The heavy bombers have not flown for several years and are likely to need a major rework before they can again be considered operational

C. Export Controls

Although rich in defense-related production capabilities, nuclear-energy, and missile production capacity, Ukraine inherited little in the way of export control structures or expertise. However, in the past few years the Government of Ukraine has made noteworthy progress in assembling many of the key elements of an effective export control system. On 5 December 1993, the U.S. and Ukraine signed an agreement under which the U.S. would provide assistance for Ukraine to establish export controls over equipment, material and technology related to weapons of mass destruction (WMD).

Ukraine currently has a comprehensive export control system which is defined in both laws and executive decrees. In January 1997 President Kuchma issued a decree that reorganized Ukraine's export control regime. The Export Control Commission was renamed the Export Control Policy Commission and its membership was raised to the deputy-minister level. The Commission only deals with the most sensitive export license applications. Routine license applications are handled by the new state export control service which was created by the presidential decree from the old expert technical committee of the cabinet of ministers. This new licensing structure has heightened interagency focus on sensitive export control issues and represents a strong desire on the part of the GOU to improve its export control system.

Ukraine does not have a comprehensive export control law and there are some 90 different articles in various Ukrainian laws that have some bearing on export controls. Two of the most important decrees, issued by the Cabinet of Ministers, were signed in late 1995 and early 1996, establishing commodity control lists for missile and nuclear technologies respectively. The lists are consistent with the guidelines for the Missile Technology Control Regime (MTCR) and the Nuclear Suppliers Group (NSG). On 30 March 1996, it was reported that Ukraine's Cabinet of Ministers approved an "order of control" on the import, export, and transit of nuclear technology, instruments, and materials, ionized radiation sources, and radioactive isotopes. Furthermore, exports to countries which may develop nuclear arms, but currently possess no nuclear weapons, is forbidden under the order.

D. Ukraine's Nuclear Industry

The nuclear industry of Ukraine is a vital part of the national economy. In 1995 nuclear power accounted for approximately 38 percent of the total electricity production. Ukraine has five nuclear power stations with fourteen reactors in commercial operation. Ukraine also has research facilities whose work involves nuclear materials. All of Ukraine's nuclear facilities are subject to IAEA safeguards.

POWER REACTORS IN UKRAINE

Name	Location	Unit	Type	Operational	Power	Fuel % U-235
Chornobyl	Prypyat	1	RBMK-1000	N	700 Mwe	
		2	RBMK-1000	N	700 Mwe	
		3	RBMK-1000	Y	925 Mwe	up to 2.4%
Khmelnytskyy	Neteshyn	1	VVER-1000	Y	953 Mwe	3.3-4.4%
Rivne	Kuznetsovsk	1	VVER-440	Y	420Mwe	3.3%
		2	VVER-440	Y	420 Mwe	3.3 %
		3	VVER-1000	Y	954 Mwe	3.3-4.4%
South Ukraine	Konstyantynivka	1	VVER-1000	Y	953 Mwe	3.3-4.4%
		2	VVER-1000	Y	953 Mwe	3.3-4.4%
		3	VVER-1000	Y	953 Mwe	3.3-4.4%
Zaporizhzhya	Energodar	1	VVER-1000	Y	953 Mwe	3.3-4.4%
		2	VVER-1000	Y	953 Mwe	3.3-4.4%
		3	VVER-1000	Y	953 Mwe	3.3-4.4%
		4	VVER-1000	Y	953 Mwe	3.3-4.4%
		5	VVER-1000	Y	953 Mwe	3.3-4.4%
		6	VVER-1000	Y	953 Mwe	3.3-4.4%

RBMK - Boiling Water Graphite Reactor
VVER - Pressurized Water Reactor

Significant nuclear research facilities include:

- The Kiev Institute of Nuclear Research, Academy of Sciences. The Institute contains a 10-MW WWR-M research reactor. The reactor is fueled with HEU which may vary from 36 to 90 % U-235. The typical loading of the reactor core is 13.2 Kg of HEU. The reactor is operational and spent fuel is stored onsite. The Institute also contains one critical assembly which is not operational and has not been licensed. Reportedly, in time it will be licensed for scientific research work.

- The Kharkiv Institute of Physics and Technology (KIPT). The Institute possesses tens of kilograms of LEU and HEU in bulk form with enrichment levels up to 90 percent. The

Institute is listed as one of six nuclear storage facilities and conducts research in nuclear physics and solid-state physics.

- The Sevastopol Institute of Nuclear Energy and Industry includes an IR-200 research reactor. The reactor is used for training submariners and is administered by Derzhkomatom, which is responsible for all of the nuclear power plants in Ukraine. The reactor is reported to be out of service. Various reports say that the reactor uses uranium enriched anywhere from 10 to 90 percent. In 1992, a Ukrainian official asserted that the reactor contains up to 3 kg of U-235 fuel enriched to more than 20 percent.

Ukraine has been acquiring power reactor fuel rods from Russia in exchange for returned nuclear warheads. This contract will terminate in 1998. Ukraine will continue to be dependant on Russia for enriched uranium for its reactors but intends to form a joint venture with Russia and Kazakhstan to develop a capability to manufacture its own fuel rods. According to a February 1997 Itar-Tass report, Ukrainian nuclear officials announced that Ukraine plans to supply fuel rods to its five nuclear power plants starting in 2001.

In July 1996 the new corporation, UkrEnerhoAtom, was established in Ukraine to sell electricity produced by Ukrainian nuclear power plants. According to Chornobyl plant manager Serhiy Parashyn, who is one of the founders of UkrEnerhoAtom, the decision to create the enterprise was made by a council of directors from each of the five nuclear power plants. However, the new corporation will not be involved in the plants' operations and thus will have no responsibility for the reactors' operational safety.

Ukraine is one of the least energy efficient countries in the world. Energy consumption per dollar of GDP is about 3 or 4 times higher than in OECD countries. Many of Ukraine's power plants are old and inefficient and the GOU subsidizes the sale of electricity, coal and gas to residential customers. Ukraine has 53,000 megawatts of power-generating capacity and a peak demand of less than 34,000 megawatts. Despite this excess capacity, most cities throughout Ukraine periodically experience power disruptions as entire regions are removed from the power grid in an effort to maintain system frequency at acceptable levels. Although the nuclear sector nominally has about 26% of Ukraine's generating capacity, it is becoming increasingly dependent on its nuclear power plants. The percent of Ukraine's electrical output generated by the nuclear sector has been steadily increasing from 25.5% in 1990 to 38% in 1995. In December 1997, the nuclear sector produced about 45 percent of the country's electricity because of fuel supply shortages in the fossil-thermal sector.

In May 1995 the Verkhovna Rada approved "Ukraine's National Energy Program Through 2010." The program emphasizes independence for Ukraine in the area of electricity, to be achieved through the restructuring of the electricity sector, construction of thermal power plants, and development of the nuclear energy sector. The program envisages that in 2010 50% of Ukraine's electricity will be produced by thermal plants, 40% by nuclear, and 10% by alternative sources. A three year moratorium on the construction of nuclear power stations in Ukraine was

scrapped in 1993 and many government officials see Ukraine's nuclear industry as a vehicle for saving the national economy. The United States has led the G-7 in building a case for European Bank for Reconstruction and Development (EBRD) financing to complete two 950 Mwe Power Reactors, Khmelnytskyy 2 and Rivne 4, as part of a package to close the Chornobyl reactor facility.

E. Chornobyl

On the morning of 26 April 1986 a steam explosion destroyed Unit 4 of the Chornobyl Nuclear Power Plant in Ukraine. The plume from the explosion reached an altitude of approximately 5 kilometers and spread contamination over wide areas of the Former Soviet Union as well as Europe. Thousands have died from the resulting contamination, and thousands of people continue to be affected.

The Chornobyl accident was the most devastating civil nuclear disaster in the history of mankind. Approximately 130,000 people were immediately evacuated from a 48 kilometer diameter exclusion zone established around the plant. Radioactive particles from the explosion spread as far as Europe and Asia, and to a lesser extent, North America. Deaths attributed to the explosion number approximately 200, while deaths attributed to the radioactivity number in the thousands, and still affect families who lived in the area.

The damaged reactor was encased in a steel and concrete sarcophagus. Time and elements have degraded the structural integrity of the sarcophagus and plans are under way to repair and strengthen it. The Chornobyl sarcophagus initiative is a G-7 effort under the 1995 G-7/Ukraine Memorandum of Understanding (MOU). In April 1997, the G-7 and Ukraine reached agreement on a plan to repair the deteriorating sarcophagus. The G-7 has pledged $300 million for the approximately $760 million project and has called for international participation. As of November 1997, $1.5 billion had been identified for investments in Ukraine's energy sector, nuclear safety assistance, social impacts planning, and energy sector reforms.

The government of Ukraine is under pressure to completely close the Chornobyl station, and agreed in the 1995 MOU to do so around the year 2000. Construction was reportedly halted on a fifth and sixth unit after the 1986 accident. Unit 2 was shut down in 1991 after a fire destroyed the generator hall. Units 1 and 3 were shut down in 1991 after an accident at the similar Leningrad Nuclear Power Plant (at Sosnovyy Bor) in Russia, but were restarted in December and October of 1992, respectively. The restart decision was taken against the advice of the Ukrainian State Committee for Nuclear and Radiation Safety (UkrSCNRS--Derzhkomatom). UkrSCNRS managed to secure the down-rating of Unit 1 to 80 percent of its nominal (gross) capacity of 1000 Mwe. In accordance with Ukraine's vow to the G-7 to shut down the entire Chornobyl NPP, Unit 1 was shut down on 30 November 1996, leaving Unit 3 as the only unit operational. Unit 3 is scheduled to return to service on 26 March 1998 following completion of repairs to faulty weld seams in the reactor's cooling pipes. Ukrainian government officials have said that the completion of two 950 Mwe Power Reactors, Khmelnytskyy 2 and Rivne 4, will

provide replacement electricity that will enable Ukraine to permanently close the Chornobyl nuclear power station.

F. Uranium Industry

Ukraine possesses approximately 11 percent of the uranium resources in the former Soviet Union. Ukraine's uranium industry is limited to mining ore and producing uranium concentrate (yellowcake). The Zheltyye Vody Uranium Ore Concentration Plant, with an annual production capacity of about 1500 metric tons, is the country's sole producer of yellowcake. Two mines supply Zheltyye Vody - the Ingulskyi mine near Kirovohrad and the larger Vatutininski mine in Smolino. To replace dwindling uranium ore deposits at these mines, Ukraine has decided to develop a large unexploited uranium deposit at Novokostyantynivki in Knipropetrovsk Oblast. It is expected that uranium enrichment will continue to be carried out abroad. Currently, Ukrainian yellowcake is sold to Russia in return for finished fuel components used in Ukraine's nuclear power reactors.

There is a zirconium mine in the Dnipropetrivsk region in the city of Volnogorsk, and a zirconium separation plant in the city of Dniprodzerzhynsk. The zirconium mine and the separation plant are capable of meeting all of Ukraine's long-term needs and the mine is the only operational zirconium mine in the former Soviet Union.

G. IAEA Safeguards

A sui generis comprehensive safeguards agreement with Ukraine entered into force on 13 January 1995 (INFCIRC/462). This agreement was superseded by a new safeguards agreement pursuant to the NPT which entered into force on 22 January 1998. There is no difference in the safeguards implementation under the two agreements and the IAEA has characterized the change in the agreement as "just a formality." The IAEA received Ukraine's initial declaration on 2 March 1995. The IAEA is still in the initial stages of Safeguards implementation but has not found any significant anomalies. Ad hoc inspections are now carried out at all facilities and the IAEA expects to move to routine safeguards implementation soon. In regard to the implementation of Part 1 of the Strengthened Safeguards System, the IAEA has collected environmental samples to establish baseline signatures at Ukraine's hot cell facilities.

H. US - Ukraine Nuclear Cooperation

(1) Cooperative Threat Reduction (CTR)

In FY 1997, over $396 million was obligated by Congress for nine unique CTR projects in Ukraine.

1. Emergency Response Training/Equipment: Enhance Ukraine's ability to respond to nuclear weapons accident/incident.

2. Cooperative Reactor Safety Upgrade: Enhance safety of civil nuclear power plants.

3. Material Control, Accounting & Physical Protection: Develop effective control of nuclear materials used in peaceful activities.

4. Export Control: Assist in building export control institutions & infrastructure.

5. Industrial Partnerships: Assist in conversion & privatization of excess military/industrial capability.

6. Defense & Military Contracts: Promote improved military-military relations.

7. Strategic Offensive Arms Elimination: Provide assistance in the elimination of all ICBM launchers, and the disposition of rocket propellant.

8. Government to Government Communications Link: Provide capability of meeting START & INF communications obligations; final equipment operational in November 1995.

9. Nuclear Infrastructure Elimination: Dismantling, destroying or rendering ineffective key elements of the support infrastructure for deployed nuclear forces.

(2) Brain Drain

Although no USSR institutes on Ukrainian soil were directed to this purpose, Ukraine has the technical, engineering, and scientific personnel needed to design and build a nuclear weapon. Sources at the Ukrainian Academy of Sciences have reported that 5,000 leading scientists have left Ukraine between 1992 and 1997. Boris Paton, the Academy's president, told journalists that scientists prefer to work in Australia, Europe, and the United States because of better conditions. It appears that in recent months the nuclear engineering brain drain has stopped or at least slowed, but Ukraine still has serious financial problems that could restart the exodus. The Science and Technology Center in Ukraine (STCU) was opened in 1995 with CTR funds to engage weapons and delivery systems scientists and engineers in civilian research and development activities. The U.S. continues to support the Center through funds appropriated under the FREEDOM Support Act. To date, the STCU has funded over 150 projects valued at $18 million that engage over 2600 former Soviet weapon scientists, plus substantial numbers of additional technical support personnel, at institutes across Ukraine. The STCU is a multilateral initiative involving the United States, Ukraine, Canada and Sweden. The European Union will be joining in 1998, and Japan has indicated its interest in making financial contributions. Ukraine has consistently honored its obligations under the international Agreement that established the STCU. This has included providing the STCU facility in Kiev; providing tax- and customs-free treatment for STCU activities in the territory of Ukraine; and permitting

unfettered access for independent audit and monitoring at STCU project sites at participating Ukrainian scientific institutes, including the most sensitive nuclear research facilities inherited from the Soviet Union.

(3) Material Protection, Control, and Accounting (MPC&A)

In December 1993, the U.S. Department of Defense and Ukraine's State Committee for Nuclear Radiation Safety signed the MPC & A implementing agreement, initiating the Nunn-Lugar Program in the area of material control and accounting (MCA) and physical protection (PP) in Ukraine. The U.S. Department of Energy (DOE) is the executor of this program through its Russia/Newly Independent States Nuclear Material Security Task Force. The goal of the task force is to prevent the theft or diversion of nuclear materials by providing modern equipment and training for physical protection and nuclear material control and accounting. The task force is providing assistance at four sites in Ukraine: the Kiev Institute for Nuclear Research (KINR), the Kharkiv Institute of Physics and Technology (KIPT), the South Ukraine Nuclear Power Plant (SUNPP), and the Sevastopol Institute of Nuclear Energy and Industry (SINEL).

In August - September 1994, DOE-led teams performed MPC&A site surveys at KINR and SUNPP. In June 1995, a site survey was conducted at KIPT. In May 1996, a site survey was conducted at SINEL. Extensive physical protection upgrades have been installed at KINR and automated inventory material accounting system software has been provided to all nuclear facilities along with computers and training for technical staff. Argonne National Laboratory is working with the technical staff to develop appropriate MCA procedures and to make sure that the facility staff receive the necessary training to implement these procedures fully. DOE has provided general purpose, low resolution, and high resolution gamma-ray spectroscopy systems for nondestructive assay to confirm the isotopic composition of nuclear materials in inventory. Appropriate systems were provided to all nuclear facilities and the Ministry of Environment Protection and Nuclear Safety. On 21 October 1997, the fully operational upgraded MPC&A system at KINR was commissioned. This was the first modern, technology based MPC&A system in Ukraine and the KINR system is the largest project completed so far by the DOE task force.

I. Ukraine Nonproliferation Policy

Ukraine probably has the technical, engineering, and scientific knowhow to design and build nuclear weapons. However, Ukraine's leaders have consistently stated that Ukraine has no intention of becoming a nuclear weapons state. Moreover, Ukraine has codified this policy through adherence to the NPT and acceptance of IAEA safeguards on all its nuclear facilities. In addition, Ukraine has supported key elements of the international nonproliferation regimes. Ukraine is a member of the Nuclear Suppliers Group (NSG) and the Zangger Committee. It is also a member of the Wassenaar Arrangement and adheres to the provisions of the Missile Technology Control Regime (MTCR). Ukraine is a party to the Biological Weapons Convention (BWC) and has signed but not ratified the Comprehensive Test Ban Treaty (CTBT). Ukraine has

signed but not ratified the Chemical Weapons Convention (CWC).

With a large civil nuclear program, significant indigenous manufacturing capabilities, and a still evolving nuclear export control system, Ukraine is a target for nuclear proliferant states seeking assistance for unsafeguarded nuclear activities or for supply to civil nuclear projects which cannot be obtained from most nuclear supplier nations. The United States has raised several cases with Ukrainian officials over the years in this connection and Ukrainian cooperation has been largely satisfactory. However, the United States encountered significant difficulty in obtaining a firm Ukrainian commitment to avoid any assistance to Iran's nuclear program. The Ukrainian firm Turboatom contracted to supply turbines for Iran's Bushehr nuclear power reactor which is being supplied by Russia over the strong objections of the United States. Ukrainian authorities were concerned about the political and economic fallout of canceling this contract, but ultimately decided to do so in connection with a package of U.S. incentives and in view of the impact such a transaction would have on Ukraine's relations with the United States.

J. Summary

The Government of Ukraine has made a strong commitment to the nonproliferation of nuclear weapons. However, additional work is needed to further reduce the risk that nuclear materials or technology from Ukraine could fall into the hands of terrorist or rogue states attempting to develop nuclear weapons. Ukraine continues to suffer from severe economic problems that, in some cases, has the potential to affect its nonproliferation policy. Ukraine will face significant challenges in upgrading the safety and security of its nuclear facilities in the future. Ukraine has made substantial progress in developing the elements of a strong export control system and improving the material protection, control and accounting of its nuclear material. U.S. nonproliferation assistance to Ukraine has been successful in reducing the risk that items of proliferation concern will originate in, or transit through, Ukraine and has improved the security of its nuclear facilities.

II. COMPLIANCE WITH STATUTORY REQUIREMENTS

As will be shown below, the proposed Agreement meets the applicable requirements of the Atomic Energy Act, as amended, (hereinafter the Act) and the Nuclear Non-Proliferation Act (hereinafter the NNPA). Section 123 a. of the Act, as amended by Section 401 of the NNPA, requires new or amended agreements for cooperation to include the terms, conditions, duration,

nature and scope of the cooperation.

The nature and scope of the cooperation authorized by the proposed Agreement is described in Section A below. The most pertinent terms and conditions of the cooperation authorized by the proposed Agreement are discussed in Sections B, C, D, and E below.

The duration of the proposed Agreement is thirty years from the date of its entry into force and is extendable by agreement of the parties. Either party may terminate the agreement at any time by providing a one year written notice to the other party.

A. Nature and Scope of Cooperation

(1) Permitted Cooperation

Article 2 of the proposed Agreement describes in general terms the kinds of cooperative activity envisaged: the use of nuclear energy for peaceful purposes and the transfer of information, material, equipment and components. Such cooperation is to be in accordance with the proposed Agreement and the applicable treaties, national laws, regulations and license requirements of the parties. Article 3 sets forth various topics on which information may be transferred such as the development of reactors, the physical protection of nuclear material, and nuclear health and safety matters. Article 4 (1) provides that material, equipment and components may be transferred for applications consistent with the proposed Agreement. Material, equipment and components are defined in Article 1 (I), (E), and (B), respectively; among such commodities are natural uranium, low enriched uranium, reactors, and specialized reactor components. Article 4 (4) provides that small quantities of special nuclear material, such as plutonium and high-enriched uranium, may be transferred for use as samples, standards, detectors, targets and for such other purposes as the parties may agree.

(2) Types of Cooperation Not Authorized

The proposed Agreement excludes certain types of cooperation from its scope and provides that amendment of the proposed Agreement would be required for certain other types of cooperation.

Article 3 (3) provides that restricted data, as defined in Article 1(O), shall not be transferred under the proposed Agreement. Article 3 (4) of the proposed Agreement provides that sensitive nuclear technology, as defined in Article 1(Q) of the proposed Agreement, shall not be transferred under this agreement unless provided for by an amendment to this agreement. (In addition, Article 3 (2) provides that neither party is required to transfer any information which it is not permitted to transfer.)

Article 4 (1) provides that the only special nuclear material that can be transferred to Ukraine under the proposed Agreement is low enriched uranium, except as provided in Article 4(4). Article 4(1) also states that neither party shall transfer sensitive nuclear facilities, as defined in

Article 1(P) of the proposed Agreement, and major critical components thereof, as defined in Article 1(H), unless the agreement is amended to permit such transfer.

The effect of these provisions is that the proposed Agreement does not permit the transfer of inter alia sensitive nuclear fuel cycle technology or facilities such as for enrichment or reprocessing, nor the transfer of weapons-usable nuclear material such as plutonium or high enriched uranium except in small quantities (e.g. a few grams) as may be agreed for the purposes stated above under Article 4 (4).

B. Specific Requirements for Agreements for Cooperation

Section 123 a. of the Atomic Energy Act sets forth nine specific requirements which must be met in an agreement for cooperation. These are set forth below, with a description and explanation of the provisions of the proposed Agreement which address each requirement.

(1) Duration of Safeguards

Subparagraph (1) of Section 123 a. of the Act requires:

> a guaranty by the cooperating party that safeguards as set forth in the agreement for cooperation will be maintained with respect to all nuclear materials and equipment transferred pursuant thereto, and with respect to all special nuclear material used in or produced through the use of such nuclear materials and equipment, so long as the material or equipment remains under the jurisdiction or control of the cooperating party, irrespective of the duration of other provisions in the agreement or whether the agreement is terminated or suspended for any reason.

This provision is designed to provide protection against any termination of the safeguards "as set forth in the agreement" with respect to items subject to the proposed Agreement. Article 9, Article 14 (3), and the "Safeguards" section of the Agreed Minute of the proposed Agreement satisfy this requirement.

Article 9 (2) provides that "source or special nuclear material transferred to Ukraine pursuant to this Agreement and any source or special nuclear material used in or produced through the use of material, equipment or components so transferred shall be subject to safeguards in accordance with the agreement between Ukraine and the IAEA for the application of safeguards in connection with the NPT, signed on 21 September 1995 and entered into force on 22 January 1998.

Article 9(4) provides further assurance of the continued applicability of safeguards in Ukraine by requiring that if the United States "becomes aware of circumstances which demonstrate that the IAEA for any reason is not or will not be applying safeguards in accordance with [Ukraine's

NPT safeguards agreement], to ensure effective continuity of safeguards the parties shall consult and immediately enter into arrangements with the IAEA or between themselves which conform with IAEA safeguards principles and procedures, which provide assurance equivalent to that intended to be secured by the system they replace, and which conform with the coverage required by [Article 9(2)]."

Also, the "Safeguards" paragraph of the Agreed Minute appended to the proposed Agreement provides that "if either party becomes aware of circumstances referred to in paragraph 4 of Article 9, either party shall have the rights listed below, which rights shall be suspended if both parties agree that the need to exercise such rights is being satisfied by the application of IAEA safeguards under arrangements pursuant to paragraph 4 of Article 9:

1. To review in a timely fashion the design of any equipment transferred pursuant to the Agreement, or of any facility which is to use, fabricate, process, or store any material so transferred or any special nuclear material used in or produced through the use of such material or equipment;

2. To require the maintenance and production of records and of relevant reports for the purpose of assisting in ensuring accountability for material transferred pursuant to the Agreement and any source material or special nuclear material used in or produced through the use of any material, equipment or components so transferred; and

3. To designate personnel, in consultation with the other party, who shall have access to all places and data necessary to account for the material in paragraph 2, to inspect any equipment or facility referred to in paragraph 1, and to install any devices and make such independent measurements as may be deemed necessary to account for such material. Such personnel shall, if either party so requests, be accompanied by personnel designated by the other party.

Article 9 (5) reinforces all of this by providing that "each party shall take such measures as are necessary to maintain and facilitate the application of safeguards provided for under this article."

With respect to continuation of safeguards, Article 14 (3) states that "notwithstanding the termination or expiration of this agreement or any cessation of cooperation hereunder for any reason, Articles 5, 6, 7, 8, 9 and 11 shall continue in effect so long as any material, equipment or components subject to these articles remains in the territory of the party concerned or under its jurisdiction or control anywhere, or until such time as the parties agree that such material, equipment, or components are no longer usable for any nuclear activity relevant from the point of view of safeguards."

Article 9, paragraphs 6 and 7, also require each Party to maintain an accounting and control

system for nuclear material and to provide, or allow the IAEA to provide upon request of the other Party, status reports on inventories of material subject to the proposed Agreement.

(2) Full-Scope Safeguards

Subparagraph (2) of Section 123 a. of the Act requires:

> in the case of non-nuclear-weapon states, a requirement, as a condition of continued United States nuclear supply under the agreement for cooperation, that IAEA safeguards be maintained with respect to all nuclear materials in all peaceful nuclear activities within the territory of such state, under its jurisdiction, or carried out under its control anywhere.

Article 9 (1) meets this requirement by providing that cooperation under the proposed Agreement shall require the application of IAEA safeguards "with respect to all nuclear activities within the territory of Ukraine, under its jurisdiction or carried out under its control anywhere." The IAEA is applying such safeguards in Ukraine under the NPT safeguards agreement which entered into force on January 22, 1998.

(3) No Military or Explosive Use

Subparagraph (3) of Section 123 a. of the Act requires:

> ...a guaranty by the cooperating party that no nuclear materials and equipment or sensitive nuclear technology to be transferred pursuant to such agreement, and no special nuclear material produced through the use of any nuclear materials and equipment or sensitive nuclear technology transferred pursuant to such agreement, will be used for any nuclear explosive device, or for research on or development of any nuclear explosive device, or for any other military purpose.

Article 8 of the proposed Agreement satisfies this requirement by requiring that:

> material, equipment and components transferred pursuant to this agreement and material used in or produced through the use of any material, equipment or components so transferred shall not be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

As noted earlier, Article 3(4) provides that "sensitive nuclear technology shall not be transferred under this agreement unless provided for by an amendment to this agreement."

(4) Right of Return

For agreements for cooperation with non-nuclear-weapon states, subparagraph (4) of Section 123 a. of the Act requires:

> ...a stipulation that the United States shall have the right to require the return of any nuclear materials and equipment transferred pursuant thereto and any special nuclear material produced through the use thereof if the cooperating party detonates a nuclear explosive device or terminates or abrogates an agreement providing for IAEA safeguards.

Article 11 meets this requirement by providing:

i. If either party at any time following entry into force of this agreement:

   a. does not comply with the provisions of Article 5, 6, 7, 8, or 9 or;
   b. terminates, abrogates or materially violates a safeguards agreement with the IAEA;

   the other party shall have the rights to cease further cooperation under this agreement and to require the return of any material, equipment and components transferred under this agreement and any special nuclear material produced through their use.

ii. If Ukraine at any time following entry into force of this agreement detonates a nuclear explosive device, the United States of America shall have the same rights as specified in paragraph 1.

(5) Retransfer

Subparagraph (5) of Section 123 a. of the Act requires:

> a guaranty by the cooperating party that any material or any Restricted Data transferred pursuant to the agreement for cooperation and...any production or utilization facility transferred pursuant to the agreement for cooperation or any special nuclear material produced through the use of any such facility or through the use of any material transferred pursuant to the agreement, will not be transferred to unauthorized persons or beyond the jurisdiction or control of the cooperating party without the consent of the United States.

Article 5 (2) of the proposed Agreement satisfies the requirements of Sections 123 a. and 109 of

the Act by providing that:

> Material, equipment and components transferred pursuant to this agreement and any special nuclear material produced through the use of any such material or equipment shall not be transferred to unauthorized persons or, unless the parties agree, beyond the recipient party's territorial jurisdiction.

Any production or utilization facility that may be transferred under the proposed Agreement would constitute equipment as that term is defined in Article 1(E) (this observation also applies to criteria 6,7,8 discussed below). Also, as noted earlier, Article 3(3) provides that restricted data shall not be transferred under the agreement.

The exercise of this particular United States control with respect to "special nuclear material produced through the use of nuclear material transferred pursuant to the Agreement and not used in or produced through the use of equipment transferred pursuant to the Agreement" is limited by the rule of proportionality set out under "Coverage of Agreement" in the Agreed Minute. That section confirms that the retransfer requirements of Article 5 shall be applied in such cases to "that proportion of special nuclear material produced which represents the ratio of transferred material used in the production of the special nuclear material to the total amount of material so used, and similarly for subsequent generations."

(6) Physical Security

Subparagraph (6) of Section 123 a. of the Act requires:

> a guaranty by the cooperating party that adequate physical security will be maintained with respect to any nuclear material transferred pursuant to such agreement and with respect to any special nuclear material used in or produced through the use of any material, production facility, or utilization facility transferred pursuant to such agreement.

Article 7 (1) of the proposed Agreement satisfies this requirement by requiring that:

> Adequate physical protection shall be maintained with respect to source or special nuclear material and equipment transferred pursuant to this Agreement and special nuclear material used in or produced through the use of material or equipment so transferred.

With respect to the meaning of "adequate," Section 127 (3) of the Act provides that physical security measures shall be deemed adequate if they provide a level of protection equivalent to that required by regulations promulgated by the Nuclear Regulatory Commission (NRC) establishing levels of physical protection. (See NNPA Section 304 (d); 10 CFR 110.43.)

Article 7 (2) of the proposed Agreement satisfies this test by providing that:

> The parties agree to the levels for the application of physical protection set forth in the Annex to this agreement, which may be modified by mutual consent of the parties without amending this agreement. The parties shall maintain adequate physical protection measures in accordance with these levels. These measures shall as a minimum provide protection comparable to the recommendations set forth in the current version, as agreed to by the parties, of IAEA Document INFCIRC/225.

The standards of physical protection that must be met under the proposed Agreement are those that are accepted and implemented world-wide. These standards are also equivalent to those required by the above mentioned U.S. NRC regulation.

(7) Reprocessing, Enrichment or Other Alteration

Subparagraph (7) of Section 123 a. of the Act requires:

> ...a guaranty by the cooperating party that no material transferred pursuant to the agreement for cooperation and no material used in or produced through the use of any material, production facility, or utilization facility transferred pursuant to the agreement for cooperation will be reprocessed, enriched or (in the case of plutonium, uranium 233, or uranium enriched to greater than twenty percent in the isotope 235, or other nuclear materials which have been irradiated) otherwise altered in form or content without the prior approval of the United States.

Article 6 of the proposed Agreement satisfies these requirements by providing the following:

1. Material transferred pursuant to this agreement and material used in or produced through the use of material or equipment so transferred shall not be reprocessed unless the parties agree.

2. Plutonium, uranium 233, high enriched uranium and irradiated source or special nuclear material, transferred pursuant to this agreement or used in or produced through the use of material or equipment so transferred, shall not be altered in form or content, except by irradiation or further irradiation, unless the parties agree.

3. Uranium transferred pursuant to this agreement or used in any equipment so transferred shall not be enriched after transfer unless the parties agree.

The consent provisions in Article 6 of the proposed Agreement are also subject to the proportionality provision in the Agreed Minute (see above under (5) Retransfer).

(8) Storage

Subparagraph (8) of Section 123 a. of the Act requires:

> ...a guaranty by the cooperating party that no plutonium, no uranium 233, and no uranium enriched to greater than twenty percent in the isotope 235, transferred pursuant to the agreement for cooperation, or recovered from any source or special nuclear material so transferred or from any source or special nuclear material used in any production facility or utilization facility transferred pursuant to the agreement for cooperation, will be stored in any facility that has not been approved in advance by the United States.

Article 5 (1) of the proposed Agreement fulfills this requirement by providing that:

> Plutonium and uranium 233 (except as contained in irradiated fuel elements), and high enriched uranium, transferred pursuant to this agreement or used in or produced through the use of material or equipment so transferred shall only be stored in a facility to which the parties agree.

The storage control provided for in Article 5(1) of the proposed Agreement is also subject to the proportionality provision in the Agreed Minute.

(9) Sensitive Nuclear Technology

Subparagraph (9) of Section 123 a. of the Act requires:

> a guaranty by the cooperating party that any special nuclear material, production facility, or utilization facility produced or constructed under the jurisdiction of the cooperating party by or through the use of any sensitive nuclear technology transferred pursuant to such agreement for cooperation will be subject to all the requirements specified in this subsection.

Article 3 (4) of the proposed agreement precludes transfers of sensitive nuclear technology and thus there is no need for the agreement to contain these guarantees. Any amendment of the proposed Agreement that authorized transfers of sensitive nuclear technology would have to incorporate these guarantees. Such an amendment would be subject to the same approval and review procedures as the proposed Agreement.

C. NNPA Section 402 -- Additional Requirements

Section 402(a) of the NNPA requires that:

> Except as specifically provided in any agreement for cooperation, no source or special nuclear material hereafter exported from the United States may be enriched after export without the prior approval of the United States for such enrichment.

Article 6 (3) satisfies this restriction by providing that "uranium transferred pursuant to thi Agreement or used in any equipment so transferred shall not be enriched after transfer unless the parties agree."

Section 402 (b) of the NNPA requires that:

> In addition to other requirements of law, no major critical component of any uranium enrichment, nuclear fuel reprocessing, or heavy water production facility shall be exported under any agreement for cooperation...unless such agreement fo cooperation specifically designates such components as items to be exported pursuant to the agreement for cooperation.

As noted above, Article 4 (1) makes clear that major critical components of sensitive nuclear facilities may not be transferred under the proposed Agreement. The definition of "sensitive nuclear facility" in Article 1 (P) of the proposed Agreement encompasses the facilities described in Section 402 (b) of the NNPA.

D. Section 129 of the Atomic Energy Act -- Conduct Resulting in Termination of Nuclear Exports

Section 129 of the Atomic Energy Act prohibits exports of nuclear materials and equipment or sensitive nuclear technology to countries that engage in proscribed activities. Among the proscribed activities in Section 129 are detonation of a nuclear explosive, violation or termination of IAEA safeguards, or engaging in activities involving source or special nuclear material having direct significance for the manufacture or acquisition of nuclear explosive devices and having failed to take steps in the judgment of the President representing sufficient progress toward terminating such activities. Based on all information available to ACDA, there is no basis for a finding that Ukraine has engaged in any of the types of activities that would require the imposition of sanctions set forth in Section 129.

E. Section 109 of the Atomic Energy Act -- Components, Items, and Substances

Section 109 of the Act empowers the Nuclear Regulatory Commission (NRC) to designate certain component parts, items and substances which, because of their significance for nuclear explosive purposes, should be subject to its licensing authority. Such licenses would be granted only upon a finding that (a) IAEA safeguards will be applied to such component, substance or item, (b) the component, substance or item(s) will not be used for any nuclear explosive device or for research on or development of any nuclear explosive device, and (c) that no such component, substances or item will be retransferred without U.S. consent.

The NRC in its regulations (10 CFR Part 110) has identified certain reactor components and two substances--heavy water and nuclear grade graphite--as subject to these criteria. The Atomic Energy Act does not require that such exports be transferred under an agreement for cooperation. However, they may be so transferred and thus be subject to all the relevant provisions of the agreement. The first two criteria noted above are met because of the language in Article 8 and Article 9(2). The third criterion (retransfer) is satisfied by Article 5 (2) of the proposed Agreement. Those provisions of Articles 5, 8, and 9 cover inter alia "components" and "material." Material is defined in Article 1(I) as including "moderator material" which in turn is defined in Article 1 (J) as including heavy water and nuclear grade graphite.

III. OTHER NONPROLIFERATION POLICY ISSUES

Any decision by the United States to engage in nuclear cooperation with a given nation involves a number of nonproliferation policy considerations in addition to the legal rights, guarantees, and safeguards contained in the applicable agreement for cooperation. These considerations could relate in a given case to such matters as scope and terms of the cooperation envisaged under such an agreement, the precedent-setting implications of particular provisions of such an agreement, the degree to which extending nuclear cooperation may foster other nonproliferation efforts, the general role of the state concerned in nonproliferation efforts, and a number of other issues. These issues will vary from case to case. This section of the assessment statement addresses policy issues of this kind that relate to the proposed Agreement.

A. Nuclear Non-Proliferation Commitment

In determining whether it is in the national interest of the United States to enter into an agreement for cooperation, foremost consideration should be given to the fundamental commitment of the country in question not to acquire nuclear weapons. After gaining its independence in late 1991, Ukraine found itself with one of the world's largest nuclear arsenals -- over 1600 nuclear warheads deployed on 176 ICBMs and on 36 heavy bombers

(equipped with air-launched cruise missiles) and thousands of non-strategic nuclear weapons. However, Ukraine made clear at an early date that it had no intention of becoming a nuclear weapon state, beginning with the July 16, 1990, Declaration on Ukrainian National Sovereignty and affirmed by the Ukrainian Parliament on October 24, 1991. On December 21, 1991, then-President Leonid Kravchuk of Ukraine joined the leaders of several other newly independent states in pledging in Alma Ata, Kazakhstan, that Ukraine would undertake a binding international obligation under the Nuclear Non-Proliferation Treaty (NPT) not to manufacture or acquire nuclear weapons; and would conclude an agreement with the International Atomic Energy Agency (IAEA) to apply safeguards to all of Ukraine's peaceful nuclear activities. This declaration also called for the removal of all non-strategic nuclear weapons from Ukraine by the middle of 1992. This goal was met, after a short halt in the transfers instituted by Ukraine regarding oversight of the dismantlement of these weapons in Russia.

Moreover, since some systems limited by the START I Treaty (signed in 1991 before the breakup of the Soviet Union) were in Ukraine, START I was expanded to included Ukraine (as well as Kazakhstan and Belarus) through the signing of the Lisbon Protocol in May 1992. In this Protocol, Ukraine reaffirmed that it would adhere to the NPT at the earliest possible time.

However, continuing problems in its relations with Russia and a vigorous debate within Ukraine presented serious obstacles for the Ukrainian leadership in obtaining the necessary parliamentary approval of the NPT and START I.

There was a small portion of the Ukrainian Parliament who supported outright possession and control of the nuclear weapons by Ukraine, in part as a security hedge against Russia and others who were perceived as posing a potential threat to Ukraine's economic and territorial independence. However, most of the debate surrounded the need for Ukraine not to join the NPT and/or ratify START I until Ukraine had received adequate assurances related to (i) its security, (ii) compensation for the fissile material in the nuclear weapons which were to be returned, and (iii) financial assistance for the huge task of dismantling and disposing of these nuclear missile systems.

There was considerable press speculation in 1992-93 that the Ukrainian Government secretly harbored an intention to retain possession of former Soviet nuclear weapons and become a nuclear weapon state; and that the arrangement with Russia for Ukraine to maintain "administrative" control of nuclear weapons on Ukrainian territory was tantamount to a declaration of nuclear weapon status. To correct this misimpression, Ukraine authorities (i) reinforced the many statements going back to 1990 of Ukraine's intention to be a non-nuclear-weapon state, (ii) explained that the nuclear missiles in Ukraine were under the command and control of Russia and Ukraine did not have direct or

indirect "control" over the nuclear weapons on its territory, (iii) asserted that the fissionable material in the nuclear weapons is the property of Ukraine and that it expected adequate compensation once the weapons were dismantled, (iv) stated that "administrative control" meant only that Ukraine had some say over the logistical support and transport of the nuclear weapons on its territory, and (v) declared that while Ukraine did not have the independent ability to launch nuclear missiles on its territory, it had obtained a veto over the use of any nuclear weapons on its territory.

The Ukrainian Parliament provided conditional ratification of START I in November 1993, but did not act on the NPT. The Parliament made clear that it had not yet received adequate assurances on the question of compensation and security assurances. This led to the Trilateral Statement signed in January 1994 by Presidents Clinton, Yelstin, and Kravchuk which contained explicit commitments with regard to the remaining issues. Specifically, a schedule was worked out that would compensate Ukraine with nuclear fuel deliveries from Russia in exchange for the return to Russia of certain numbers and types of nuclear warheads deployed in Ukraine. Moreover, agreement was reached on security assurances that Russia and the United States (and ultimately the United Kingdom) would provide to Ukraine upon START I entry-into-force and Ukrainian NPT accession. The commitments in the Trilateral Statement led on December 5, 1994, to entry-into-force of START I and Ukrainian NPT accession on December 5, 1994. At the same time, a Memorandum on Security Assurances was signed by Presidents Clinton, Yeltsin, Kravchuk, and Prime Minister Major. (Belarus and Kazakhstan joined Russia and the United States in bringing START I into force on this date, and also signed identical security assurances memoranda.)

It should be noted that throughout this process and pending its NPT accession, Ukraine had initiated efforts with the IAEA to negotiate an agreement to place all of Ukraine's peaceful nuclear activities under IAEA safeguards. Until Ukraine joined the NPT, it was under no obligation to complete such an agreement. Its willingness to proceed with that agreement is further evidence of its non-nuclear commitment. Ukraine has taken other steps to demonstrate its support of the nonproliferation regime including supporting indefinite and unconditional extension of the NPT in 1995 and signed the Comprehensive Test Ban Treaty in 1996. Ukraine is a party to the Biological Weapons Convention and a signatory to the Chemical Weapons Convention.

In connection with Ukraine's commitment not to acquire nuclear weapons, it is important to examine Ukraine's security situation. Ukraine has taken a number of steps recently that significantly improve its security -- chief among them being the agreement with Russia in May 1997 which resolved the long-standing dispute over the Black Sea Fleet and acknowledged Ukraine's independence and territorial integrity. Ukraine has also reached important cooperation agreements with other key neighbors -- Poland, Belarus, Lithuania,

and Romania. These efforts demonstrate a strong commitment to regional security. The Ukrainian Government has also taken steps to defuse potentially destabilizing internal ethnic tensions owing to the presence of a large number of ethnic Russians, primarily in the Crimea. Finally, statements by Ukrainian leaders indicated that Ukraine will continue to push for closer integration into NATO and other Western institutions. Ukraine is a member of NATO's Partnership for Peace program and in July 1997 the NATO-Ukraine Charter was signed providing clear evidence of close political ties to the premier European security organization.

The commitment of Ukraine's leadership not to acquire nuclear weapons is genuine and for the foreseeable future we envisage no changes in the security situation in that region of the world that would cause Ukraine to reconsider that commitment. Even if there were a degradation in the security situation, there are strong legal and political barriers in place to deter a radical change in policy by Ukraine including a web of international obligations that strictly prohibit the acquisition of nuclear weapons. Such a reversal of Ukrainian nuclear nonproliferation policies would seriously destabilize Eastern and Central Europe, and lead to a deterioration in Ukraine's relations with the United States and key European nations -- whose support is critical to Ukraine's goal of closer integration into Western security and economic institutions and to the trade, assistance and investment critical to Ukraine's economic long-term economic fortunes.

B. Nuclear Material Security and Nuclear Export Controls

The former Soviet Union also left a legacy in Ukraine consisting of a large nuclear power program and several sites where significant quantities of high enriched uranium are stored or used as research reactor fuel. This material is all under IAEA safeguards and Ukrainian authorities have also been taking steps to ensure this HEU is under physical security measures that meet international standards. This effort is carried out partly through assistance from the U.S. Department of Energy's Nuclear Material Security Task Force as described in Part I. Ukraine appears to be making satisfactory progress toward improving its physical security system and to date there have been no verified reports of smuggling or theft involving significant quantities of Ukrainian-origin nuclear material.

Ukraine joined the Nuclear Suppliers Group in 1996, and by doing so has pledged to implement a nationwide nuclear export control system covering a wide range of nuclear and dual-use equipment, material and technology. Ukraine has such a system in place, but -- as with other newly independent states -- it will be some time before this system can be characterized as fully effective as Ukraine gains experience and trains the personnel necessary to enforce these laws and to have effective border controls. The United States will continue to assist this effort wherever possible including through discussions on

individual cases and consultations on general nuclear export control principles including implementation of the NSG Guidelines. The U.S. Department of Energy has developed a wide ranging cooperative program with Ukrainian nuclear-related institutes and government counterparts to help improve nuclear export controls. Among the projects which are under way or completed: developing technical support for the review of nuclear license applications, reviewing control lists for consistency with international standards, conducting workshops on the principles of nuclear export controls, and assisting Ukrainian authorities in their industry outreach activities.

In connection with the proposed Agreement, Ukraine and the United States reaffirmed their strong interest in preventing the proliferation of weapons of mass destruction, missiles capable of their delivery, and of related equipment and technology. In recognition of their strategic partnership and shared interests in nonproliferation, Ukraine and the United States agreed on the need for responsible policies regarding nuclear cooperation with third countries. In that regard, Ukraine has affirmed its NSG obligation not to assist any unsafeguarded nuclear facilities and activities in non-nuclear-weapon states. This is an important policy to reinforce with Ukraine as it is not only a relatively new member of the NSG but also a potentially attractive procurement target for Pakistan and India, each of which have an substantial unsafeguarded nuclear program. Second and equally important, Ukraine has pledged to refrain from nuclear cooperation with Iran and has decided to cancel the sale of turbines to Iran for the Bushehr power reactor being supplied by Russia. The United States has been urging all states to forego nuclear cooperation with Iran in view of the fact Iran is seeking a nuclear weapon. This has been an important policy principle in recent U.S. decisions to engage in civil nuclear cooperation -- it is not something that came up just with Ukraine. The United States continues to refuse to conclude a peaceful nuclear cooperation agreement with Russia given its continued nuclear cooperation with Iran: and the President's recent decision to implement the long dormant peaceful nuclear cooperation agreement with China was based in part on a Chinese decision not to engage in new nuclear cooperation with Iran and to terminate existing projects in a relatively short period of time.

This was a difficult decision for Ukrainian officials, one which they fear could have significant adverse economic consequences. The Ukrainian firm in question provides turbines for many Russian built power reactors and could lose considerable business if Russia retaliates by developing alternate suppliers. However, following intensive U.S. diplomatic efforts including the creation of a package of incentives, senior Ukrainian leaders have made a firm decision to withdraw from the Bushehr project and to forego any other nuclear cooperation with Iran. Ukraine may fear the consequences from Russia, but it is in good company as other nuclear suppliers around the world have made a similar judgment about the risks of cooperating with Iran's nuclear program to the point where only Russia remains as willing to provide such assistance. While Ukraine will be under

strong economic and political pressure to renege on this commitment to the United States, we are reasonably satisfied that this Ukrainian decision is irreversible. However, in the unlikely event that Ukraine should act in a way that is inconsistent with its assurances to the United States, we have the recourse of suspending any cooperation under the proposed Agreement. Peaceful nuclear cooperation agreements are required by U.S. law for certain kinds of nuclear exports, but merely provide a legal framework under which individual transfers of nuclear material and equipment are licensed following a positive recommendation by the Executive branch to the Nuclear Regulatory Commission.

Ukraine's domestic nuclear industry has substantial manufacturing capability and can provide important assistance to the construction of a nuclear power station. Ukrainian authorities must continue to be vigilant against any effort by less responsible supplier states to involve Ukrainian firms in the export of power reactors to other countries of proliferation concern. The United States should consult with Ukrainian nuclear export control authorities about any credible reports that Ukrainian firms are being approached for such assistance.

C. IAEA Safeguards and U.S. Civil Nuclear Cooperation With Ukraine

Prior to its NPT accession, Ukraine negotiated a safeguards agreement with the IAEA covering all of Ukraine's civil nuclear activities. This agreement entered into force on January 13, 1995. Ukraine then completed an NPT safeguards agreement with the IAEA and that agreement entered into force on January 22, 1998. While there may yet be some weaknesses in the application of IAEA safeguards at certain facilities due to the fact that Ukraine is continuing to improve its national MPCA measures, we are confident that the IAEA is able to exercise fully its rights under its agreement with Ukraine. The IAEA has completed its initial inventory inspections at most reactors and ad hoc inspections are now carried out at all facilities. We have no reason to suspect that Ukraine has provided the IAEA with anything less than a full accounting of nuclear material and activities required to be subject to safeguards under its agreement with the IAEA. Ukraine is cooperating fully with the IAEA in the implementation of safeguard measures.

At present there is no U.S.-origin nuclear equipment or material in Ukraine that will become subject to this agreement upon its entry into force. Possible exports under the proposed agreement include reactor components or fuel for reactors such as natural uranium or low enriched uranium. (The proposed agreement prohibits the export of significant quantities of high enriched uranium or plutonium, limiting such exports to gram quantities for use as standards or other such applications.) U.S. - Ukraine cooperation over the past few years on MPCA issues has resulted in a great deal of transparency into Ukraine's nuclear program. This familiarity with Ukraine's program and U.S. knowledge

of the safeguards approaches that the IAEA uses for the type of nuclear facilities in Ukraine give us a high degree of confidence about the adequacy of IAEA safeguards to ensure that any U.S. assistance provided to Ukraine under the proposed agreement is not used for military or nuclear explosive purposes.

IV. CONCLUSION

ACDA supports the proposed Agreement and cites the following reasons:

First, the proposed Agreement meets all the requirements of the Atomic Energy Act and thus includes effective guarantees, assurances, and safeguards against misuse of nuclear equipment or material supplied under the agreement.

Second, the proposed Agreement is an appropriate response to the very important decision made by Ukraine at independence to become a non-nuclear-weapon state and to its subsequent actions to accept IAEA safeguards on all its civil nuclear activities, to accede to the NPT, to affirm its status as a party to START I, and to ensure the removal of all nuclear weapons from its territory to Russia.

Third, Ukraine has taken important steps toward establishing an effective system for the protection and accounting of nuclear material in its civil nuclear program and for the implementation of a nuclear export control program based on international norms. Moreover, after much deliberation Ukraine appears to have taken the decision necessary to withdraw from any cooperation with Iran's nuclear program.

Fourth, the proposed Agreement opens up the possibility of expanding civil nuclear cooperation between our two countries and thereby demonstrates the benefits that can accrue to countries that make strong commitments to nuclear nonproliferation. This agreement also helps to fulfill U. S. obligations under Article IV of the NPT which encourages countries with advanced nuclear programs to engage in the fullest possible cooperation with NPT parties in the peaceful uses of nuclear energy.

It will be important to continue regular bilateral consultations with Ukraine across a wide range of nuclear nonproliferation issues with particular emphasis on nuclear export policies and physical protection of nuclear material. The process of negotiating this agreement resulted in an expansion of bilateral consultations on nuclear nonproliferation between the United States and Ukraine and its implementation should further strengthen this cooperation.

Thus, on the basis of the analysis in this assessment statement and all pertinent information of which it is aware, the United States Arms Control and Disarmament Agency has arrived at the following assessment, conclusions, views and recommendations:

1. The safeguards and other control mechanisms and the peaceful use assurances in the proposed Agreement are adequate to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.

2. The proposed Agreement meets all the legal requirements of the Atomic Energy Act and the NNPA.

3. Execution of the proposed Agreement would be compatible with the nonproliferation program, policy, and objectives of the United States.

4. It is recommended that the President determine that the performance of the proposed Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security; and that the President approve and authorize the execution of the proposed Agreement.

9806940

DEPARTMENT OF STATE
WASHINGTON

April 18, 1998

MEMORANDUM FOR: THE PRESIDENT

FROM: Thomas R. Pickering
Acting Secretary of State

Federico Peña
Secretary of Energy

SUBJECT: Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy

The United States and Ukraine have recently concluded negotiations on an agreement for peaceful nuclear cooperation. This memorandum recommends that you sign the determination, approval and authorization at Attachment 1, which, pursuant to section 123 b. of the Atomic Energy Act of 1954, as amended, sets forth (1) your approval of the proposed agreement; (2) your determination that performance of the proposed agreement will promote, and will not constitute an unreasonable risk to, the common defense and security; and (3) your authorization for execution of the agreement.

If you authorize execution of the agreement, it will be signed by representatives of the United States and Ukraine. Afterward, in accordance with sections 123 b. and d. of the Act, it will be submitted to both Houses of Congress. A draft letter of transmittal to the Congress is at Attachment 2 for your signature. (This letter will be held until after the agreement is signed.) The agreement must lie before Congress for 90 days of continuous session. Unless a joint resolution of disapproval is enacted, the agreement may thereafter be brought into force.

The text of the proposed agreement is at Attachment 3. It includes an agreed minute, which is an integral part of the agreement. A summary of basic provisions is at Attachment 4. The proposed agreement provides a comprehensive framework for peaceful nuclear cooperation between the United States and Ukraine under appropriate conditions and controls reflecting a common commitment to

nuclear non-proliferation. The agreement has an initial term of 30 years and may be extended by agreement of the parties in accordance with their applicable requirements.

The proposed agreement permits the transfer of technology, material (including low enriched uranium), equipment (including reactors), and components for both nuclear research and nuclear power purposes. It does not permit transfers of any sensitive nuclear technology or facilities. In our judgment the proposed agreement meets all requirements for new agreements for peaceful nuclear cooperation set forth in section 123 a. of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act (NNPA) of 1978.

The agreed minute contains certain important understandings relating to implementation of the agreement, including provisions regarding the implementation of safeguards and US fallback safeguards rights.

Section 407 of the NNPA directs that the United States seek to include in agreements for peaceful nuclear cooperation provisions for identifying environmental implications and protection of the international environment. Article 12(2) of the proposed agreement satisfies these provisions.

In accordance with the provisions of section 123 of the Atomic Energy Act, the proposed agreement was negotiated by the Department of State, with the technical assistance and concurrence of the Department of Energy and in consultation with the Arms Control and Disarmament Agency (ACDA). The views and recommendations of the Director of ACDA are at Attachment 5. A Nuclear Proliferation Assessment Statement concerning the proposed agreement is being submitted to you separately by the Director of ACDA. The proposed agreement has also been reviewed by the Nuclear Regulatory Commission. The Commission's views will be submitted to you separately.

Ukraine is a non-nuclear weapon state party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Following the dissolution of the Soviet Union, Ukraine agreed to the removal of all nuclear weapons from its territory. It has a full-scope safeguards agreement in force with the International Atomic Energy Agency (IAEA) to implement its safeguards obligations under the NPT. Ukraine was accepted as a member of the Nuclear Suppliers Group in April 1996, and as a member of the NPT Exporters Committee (Zangger Committee) in May 1997. A more detailed discussion of these and other significant actions that Ukraine has taken to demonstrate its commitment to nuclear non-proliferation is

provided in ACDA's Nuclear Proliferation Assessment Statement.

In our judgment, the agreement text meets all US statutory requirements and will serve important US non-proliferation and other foreign policy interests. We recommend, therefore, that you determine, pursuant to section 123 b. of the Atomic Energy Act of 1954, as amended, that performance of the agreement will promote, and will not constitute an unreasonable risk to, the common defense and security; and that you approve the agreement and authorize its execution.

RECOMMENDATION

That you sign the determination, approval and authorization at Attachment 1 and the transmittal to Congress at Attachment 2. (The transmittal will be held until the agreement itself is signed.)

ATTACHMENTS

1. Draft Determination, Approval and Authorization
2. Draft Transmittal to the Congress (To be held until after the agreement is signed)
3. Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy
4. Summary of Basic Provisions of the Agreement
5. Views and Recommendations of the Director of the Arms Control and Disarmament Agency

SUMMARY OF BASIC PROVISIONS OF THE
AGREEMENT FOR COOPERATION BETWEEN
THE UNITED STATES OF AMERICA AND UKRAINE
CONCERNING PEACEFUL USES OF NUCLEAR ENERGY,
WITH ANNEX AND AGREED MINUTE

Article 1 contains definitions.

Article 2 sets forth the scope of cooperation in the use of nuclear energy for peaceful purposes. It provides that transfers of information, material, equipment and components may be undertaken subject to the agreement and to such additional terms and conditions as may be agreed by the parties. A related understanding in the Agreed Minute provides that material, equipment or components transferred between the parties for peaceful purposes will be regarded as having been transferred pursuant to the agreement only upon confirmation by the recipient party that such item or items are to be subject to the terms of the agreement.

Article 3 provides for the transfer of information in a variety of fields involving the peaceful uses of nuclear energy. Restricted data may not be transferred under the agreement. Sensitive nuclear technology may not be transferred under the agreement unless the agreement is amended to provide for such transfer.

Article 4 provides the basic enabling framework for the transfer of material, equipment and components. With some stated exceptions, including small quantities for use as samples, standards, detectors, targets and such other purposes as may be agreed, transfers of special nuclear material to Ukraine will be limited to low enriched uranium, which may be transferred for use as fuel in reactors or reactor experiments, for conversion or fabrication or for such other purposes as may be agreed. No sensitive nuclear facilities or major critical components of such facilities may be transferred unless the agreement is amended to provide for such transfers. This article further provides that the quantity of special nuclear material transferred shall not at any time be in excess of quantities that the parties agree are necessary for specified purposes. Transfers of small quantities of special nuclear material are not subject to this limitation.

Article 5 requires the parties' agreement (1) on facilities for the storage of plutonium and uranium 233 (except in irradiated fuel elements) or high enriched uranium transferred pursuant to the agreement or used in or produced through the use of material or equipment so transferred; and (2) for the retransfer of any material, equipment or components so transferred and special nuclear material produced through the use of material or equipment so

transferred. The agreed minute states that the consent rights specified in article 5 with respect to special nuclear material produced through the use of nuclear material transferred, and not used in or produced through the use of equipment transferred, shall in practice be applied to that proportion of produced special nuclear material which represents the ratio of transferred material used in its production to the total amount of material so used.

Article 6 requires the parties' agreement (1) for the reprocessing of material transferred pursuant to the agreement and material used in or produced through the use of any material or equipment so transferred; (2) for the alteration in form or content, except by irradiation or further irradiation, of plutonium, uranium 233, high enriched uranium or irradiated source or special nuclear material so transferred or produced; and (3) for the enrichment of uranium so transferred or used in any equipment so transferred. The agreed minute states that the consent rights specified in article 6 with respect to special nuclear material produced through the use of nuclear material transferred, and not used in or produced through the use of equipment transferred, shall in practice be applied to that proportion of produced special nuclear material which represents the ratio of transferred material used in its production to the total amount of material so used.

Article 7 requires each party to maintain adequate physical protection measures, in accordance with levels of protection set forth in the Annex to the agreement, with respect to all material and equipment subject to the agreement. The measures applied shall, as a minimum, provide protection comparable to that set forth in the current version of IAEA document INFCIRC/225 concerning the physical protection of nuclear material as agreed to by the parties. The Annex describes physical security levels applicable with respect to the use, storage and transport of nuclear materials classified as categories I (requiring the most stringent levels of protection), II and III. The parties agree to consult concerning the adequacy of these physical security measures and to identify agencies or authorities responsible for physical security. The provisions of this article shall be implemented in such a way as to avoid undue interference in the parties' nuclear activities and to be consistent with prudent management.

Article 8 contains a guarantee by each party that no material, equipment or components subject to the agreement will be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

Article 9 requires application of IAEA safeguards with respect to all nuclear activities within the territory of Ukraine, under its jurisdiction or carried out under its control anywhere. This article further requires source or special nuclear material transferred pursuant to the Agreement and source or special nuclear material used in or produced through the use of material, equipment or components so transferred to be subject to the two parties' respective safeguards agreements with the IAEA. This article also contains provisions for fall-back safeguards. The agreed minute sets forth certain rights each party will have in the event IAEA safeguards are not being applied. Article 9 also requires each party to take measures to maintain and facilitate the application of safeguards. This article requires each party to maintain a material accounting and control system, the details of which shall be comparable to those set forth in IAEA document INFCIRC/153 (corrected). Upon the request of either party, the other party shall report or permit the IAEA to report on the status of all inventories of material subject to the agreement. The article's provisions, finally, are to be implemented so as to avoid undue interference in the parties' nuclear activities and consistent with prudent management.

Article 10 provides that if an agreement between either party and another nation or group of nations provides such other

nation or group of nations rights equivalent to any or all those set forth under articles 5 or 6 with respect to material, equipment or components subject to the agreement, the parties may, upon the request of either, agree that implementation of such rights will be accomplished by the other nation or group of nations.

Article 11 accords each party the right to cease cooperation, suspend or terminate the agreement, and require the return of any material, equipment or components transferred under the agreement and any special nuclear material produced through their use if the other party does not comply with article 5, 6, 7, 8, or 9, or terminates, abrogates or materially violates a safeguards agreement with the IAEA. Additionally, if Ukraine detonates a nuclear explosive device, the United States shall have the same rights as stated in the preceding sentence. In the event a return is required by one party, the other party shall be reimbursed for fair market value.

Article 12 provides for consultations at the request of either party regarding the implementation of the agreement and the development of further cooperation in the peaceful uses of nuclear energy. It also provides that the parties shall consult on the environmental implications of activities under the agreement, and cooperate in protecting the international environment from radioactive, chemical or

thermal contamination arising from such activities and in related matters of health and safety.

Article 13 provides for the settlement of disputes by negotiations between the parties.

Article 14 establishes a 30 year term for the agreement, which may be extended by agreement of the parties in accordance with their applicable requirements. It provides that the agreement may be terminated at any time by either party on one year's written notice to the other party. In the event of termination or expiration of the agreement, articles 5, 6, 7, 8, 9 and 11 shall continue in effect so long as items subject to the agreement remain in the territory, under the jurisdiction or under the control of the party concerned, or until the parties agree that such items are no longer usable for any nuclear activity relevant from the point of view of safeguards.

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY
Washington, D.C. 20451

THE DIRECTOR

MAR 19 1998

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Views and Recommendations on the Proposed Agreement for Cooperation Between the United States of America and Ukraine Concerning Peaceful Uses of Atomic Energy

Following the dissolution of the Soviet Union, Ukraine had one of the world's largest nuclear arsenals deployed on its territory. However, Ukrainian leaders consistently maintained that Ukraine had no intention of becoming a nuclear weapon state and by May 1992 all tactical nuclear weapons had been moved to Russia. And in May 1992 Ukraine signed the Lisbon Protocol in which it pledged to adhere to the NPT as a non-nuclear-weapon state and to assume the rights and obligations of the former Soviet Union under the 1991 START I Treaty.

There was considerable debate in the Ukrainian Parliament prior to approval of these treaties and a few voices supported nuclear weapon status for Ukraine. However, the primary issues were compensation for the nuclear material in the weapons delivered to Russia and a desire for security assurances. Ukraine asserted "administrative" control over these weapons, but never had, nor sought, operational control. The January 1994 U.S./Russia/Ukraine Trilateral Statement resolved these matters and led to Ukraine NPT accession and START I entry into force on December 5, 1994. By June 1996 all remaining nuclear warheads had left Ukraine. Ukraine supported the indefinite extension of the NPT in 1995 and signed the Comprehensive Test Ban Treaty in 1996. Through these actions Ukraine contributed significantly to global and regional security and to U.S. nonproliferation objectives.

Ukraine has cooperated with the United States in a wide range of activities that advance nuclear nonproliferation objectives under the Department of Defense's Cooperative Threat Reduction Program. Among these projects is the establishment of the Science and Technology Center of Ukraine to engage former miliary scientists in civilian research and development. Other activities include assistance to Ukraine in developing effective systems for the control of nuclear exports and for the accounting and control of nuclear material. Ukraine has a large civilian nuclear program, including a few sites with significant quantities of high enriched uranium. No serious nuclear smuggling cases have occurred in Ukraine and the authorities are working with the U.S. Department of Energy (DOE) to upgrade physical security measures.

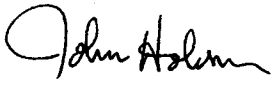
Ukraine has adopted a nationwide nuclear export control system consistent with the Guidelines of the Nuclear Suppliers Group (NSG), which Ukraine joined in 1996. Through efforts by DOE

and separate bilateral consultations on individual procurement cases, Ukraine is aware of its NSG obligations and of the actions necessary to implement these obligations. Ukrainian authorities have been responsive when U.S. officials have provided information about procurement attempts in Ukraine by countries with unsafeguarded nuclear programs and have affirmed their NSG obligation to provide no assistance to unsafeguarded nuclear activities.

Ukraine's plans to assist Iran's nuclear program, including through the supply of turbines, have been of concern to the United States. Ukraine was informed that the United States could not conclude a peaceful nuclear cooperation agreement because of the planned nuclear cooperation with Iran -- a country that we believe is seeking nuclear weapons. Ukrainian authorities fully understood this U.S. position, but were reluctant to cancel the turbine sale due to fears of serious political and economic costs. The United States has now received a high level assurance that Ukraine will refrain from nuclear cooperation with Iran including cancellation of the sale of turbines for Iran's Bushehr reactors being provided by Russia. This is a positive development for U.S. nonproliferation objectives as it leaves Russia as the lone supplier of Iran's nuclear power program with China and now Ukraine bowing out in recent months. In the unlikely event that Ukraine reverses course, the United States has the option of suspending cooperation under the agreement. Ukrainian firms can provide significant support to the manufacture of nuclear power reactors, and it will be important to raise with Ukrainian authorities any credible reports that these firms are assisting in the construction of reactors in other countries of proliferation concern.

Ukraine's commitment to responsible nuclear nonproliferation policies, with particular emphasis on its decision to refrain from nuclear cooperation with Iran, strongly supports a U.S. decision to enter into the proposed Agreement. The implementation of IAEA safeguards, physical protection measures, and nuclear export controls in Ukraine has not reached a maximum level of effectiveness. However, important progress has been made in just a few years due to the active support of Ukraine's leaders. The agreement provides a framework for continuing U.S.-Ukrainian consultations on nuclear nonproliferation. It allows for an expansion of our civil nuclear cooperation with Ukraine and demonstrates the benefits that can accrue to countries with strong commitments to nuclear nonproliferation. This agreement also helps to fulfill U.S. obligations under Article IV of the NPT to engage in the fullest possible civil nuclear cooperation with NPT parties.

In conclusion, entry into force of the proposed Agreement will serve important U.S. foreign policy and national security interests with particular emphasis on nuclear nonproliferation. I recommend that you approve the proposed Agreement, that you determine that the performance of the proposed Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security, and that you authorize the signature of the proposed Agreement.



John D. Holum

The Secretary of Energy
Washington, DC 20585

April 16, 1998

The Honorable Madeline Albright
Secretary of State
Washington, DC 20520

Dear Madam Secretary:

I have reviewed the proposed Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the United States and Ukraine. In consideration of Ukraine's significant nuclear nonproliferation accomplishments, I believe that the U.S. should conclude this Agreement in a timely manner. I have therefore signed a joint recommendation to the President that he authorize execution of the Agreement, which is attached for your review and signature. However, please note that my approval is a conditional one.

I am aware that Ambassador Pifer is currently conducting diplomatic communications with the Government of Ukraine concerning related nonproliferation issues. I am following these developments and I am hopeful the Government of Ukraine will continue to respond to such issues with the same diligence and priority that it has shown over the past several years. I understand that the National Security Council has decided to wait for a satisfactory response from the Government of Ukraine before sending our memorandum forward to the President. Therefore, my recommendation is conditional on my continued satisfaction with the results of these consultations.

I am grateful for Ambassador Pifer's efforts, as the results of these communications will be useful to the U.S. Government and to the President as he makes his decision on this proposed Agreement.

Sincerely,

Federico Peña

cc: Samuel Berger, Assistant to the President for National Security
Leon Fuerth, Assistant to the Vice President for National Security

CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 20, 1998

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

In accordance with the provisions of Section 123 of the Atomic Energy Act, as amended, the Nuclear Regulatory Commission has reviewed the proposed Agreement for Cooperation with Ukraine and supporting draft documents. It is the view of the Commission that the proposed Agreement includes all of the provisions required by Section 123 of the Atomic Energy Act, as amended. The Commission therefore recommends that you make the requisite statutory determination, approve the Agreement, and authorize its execution.

Respectfully,

Shirley Ann Jackson

Shirley Ann Jackson

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